

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
11 August 2005 (11.08.2005)

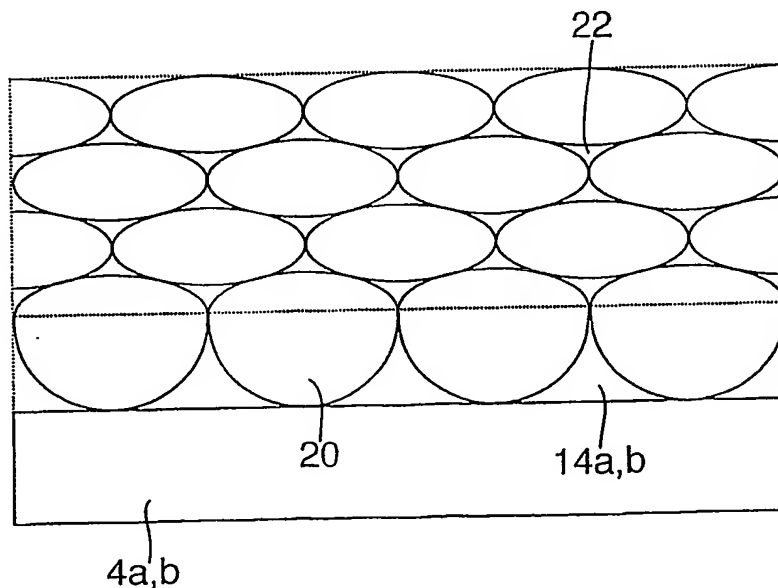
PCT

(10) International Publication Number
WO 2005/073793 A1

- (51) International Patent Classification⁷: **G02F 1/167, 1/1337**
- (21) International Application Number:
PCT/GB2005/000222
- (22) International Filing Date: 21 January 2005 (21.01.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0401766.1 28 January 2004 (28.01.2004) GB
- (71) Applicant (for all designated States except US): **QINETIQ LIMITED** [GB/GB]; Registered Office, 85 Buckingham Gate, London SW1E 6PD (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MILLER, Richard, Jonathan** [GB/GB]; QinetiQ Limited, Malvern Technology Centre, Bldg E Room 819, St Andrews Road, Malvern, Worcs WR14 3PS (GB). **VOTTE, Isabelle, Marianne** [FR/GB]; QinetiQ Limited, Malvern Technology Centre, Bldg E Road 912, St Andrews Road, Malvern, Worcs WR14 3PS (GB).
- (74) Agent: **DAVIES, Philip**; QinetiQ Limited, Intellectual Property, Cody Technology Park, Ively Road, Farnborough, Hants GU14 0LX (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: **PHORETIC CELL**



(57) Abstract: A relief structure alignment layer (14a,b) comprising a relief structure surface (22) incorporating at least one indentation (20), the at least one indentation (20) having an internal surface extending from the relief structure surface, wherein the relief structure alignment layer has a surface memory alignment layer arranged to impart a preferred liquid crystal director alignment to a liquid-crystal material in contact therewith. A method for configuring a liquid crystal material within a cell having a relief structure alignment layer by applying at least one of an electric field and a magnetic field. A phoretic display comprising at least one relief structure alignment layer.

WO 2005/073793 A1



Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.